Int. J. Pres. Ves. & Piping **35** (1988) 442–444

CONTENTS OF VOLUME 35

Numbers 1–4

Special Issue on Non-Destructive Examination in Relation to Structural Integrity

Preface v

List of Contributors xiii

SESSION I—NDE OF AUSTENITIC AND DISSIMILAR-METAL WELDS

Description of the PISC III Round Robin Test on Cast Stainless Steel (CCSSRRT) and Evaluation of Results 3
S. DOCTOR (USA) & P. JEHENSON (Italy)

PISC III Phase 2 Programme on Stainless Steel Samples: Capability, Parametric and Reliability Studies 17
J. MUSCARA, S. DOCTOR (USA), H. HERKENRATH & P. JEHENSON (Italy)

PISC III Action on Dissimilar-Metal Welds 29
E. E. BORLOO (Italy)

Ultrasonic Examination of Dissimilar-Metal Welds in BWR and PWR Plants . 37
F. AMMIRATO, R. SHANKAR (USA) & X. EDELMANN (Switzerland)

Defect Detection and Signal Processing for Cast Stainless Steel 57
R. SHANKAR, G. SELBY & P. JEONG (USA)

Discussion on Session I 73

SESSION II—THE PISC II PARAMETRIC STUDIES PROGRAMME

The Purpose of the PISC II Parametric Studies Programme 79
C. BIRAC (France) & S. CRUTZEN (Italy)

Parametric Studies on the Effect of Defect Characteristics on their Detection and Sizing by Ultrasound 89
M. CERTO, T. COLA & G. MARIANI (Italy)

Int. J. Pres. Ves. & Piping (**35**) (1988)—© 1988 Elsevier Science Publishers Ltd, England.
Printed in Great Britain

PISC Parametric Study on the Effect of Defect Characteristics on Immersion Focusing Probe Testing Results 119
PH. DOMBRET (Belgium)

PISC II Parametric Study on Flaw Characterisation Using the Tandem and TOFD Techniques 137
R. A. MURGATROYD, P. J. HIGHMORE, S. F. BURCH, T. BANN & A. T. RAMSEY (UK)

Integrated Appraisal of the Results Relative to the Effect of Defect Characteristics 171
S. CRUTZEN (Italy), R. MURGATROYD (UK), M. CERTO (Italy) & PH. DOMBRET (Belgium)

Reasons for Crack Closure and Possibilities for Detection and Sizing by NDE . 173
G. DEUSTER (FRG)

EMAT and Multifrequency Eddy Current Testing on Test Block No. 81-1192-EMT 189
G. HÜBSCHEN, K. BETZOLD & G. DEUSTER (FRG)

Parametric Study on the Effect of UT Equipment Characteristics (EEC) on Detection, Location and Sizing 201
F. LAKESTANI, E. E. BORLOO & F. MERLI (Italy)

PISC II Parametric Studies: Round Robin Test on the Measurement of UT Instrument and Transducer Characteristics (MITC) 207
E. E. BORLOO (Italy)

PISC II Parametric Study on the Effect of the Cladding 213
Y. BEURDELEY (France)

Discussion on Session II 247

SESSION III—ADVANCED UT SYSTEMS AND THEIR APPLICATION

Feature Enhanced Ultrasonic Imaging—Application of Signal Processing and Analysis 261
R. SHANKAR, A. MUCCIARDI, M. FLEMING & M. AVIOLI (USA)

Survey and Comparison of Automated UT Systems 277
V. I. NEELEY & M. J. AVIOLI (USA)

Tennessee Valley Authority Experience with Field Application of Advanced UT System 293
T. SASAHARA, M. GOTHARD, F. LEONARD & H. QUEEN (USA)

Application of an Ultrasonic Data Recording and Processing System to Reactor Pressure Vessel Examination 307
S. R. BUXBAUM, R. B. POND, JR & A. J. WILLETTS (USA)

SIRACUS, an Expert System to Help Inspectors in Characterizing Detected Defects 321
M. BIETH, J.-L. MONJARET & T. H. NGUYEN (France)

Discussion on Session III 331

SESSION IV—FUTURE WORK IN PISC III

Discussion on Session IV 337

Index 345

Number 5

Effect of Stress Ratio on Effective Stress Range Ratio and Crack Growth in 6061-T6 Al-Alloy 351
RAGHUVIR KUMAR & S. B. L. GARG (India)

The Near-Threshold High *R*-Ratio Fatigue Crack Growth Characteristics of SA508 cl III Reactor Pressure Vessel Steel 363
R. D. ACHILLES & J. H. BULLOCH (Republic of South Africa)

Design of Steel Storage Tanks with Spherical Bottoms 383
D. N. PALIWAL & R. GOPAL (India)

The Effect of Reverse Bending on the Instability of (a) Plane Strain Crack Growth in a Beam and (b) Through-wall Circumferential Crack Growth in a Pipe . . 403
E. SMITH (UK)

Approximate Expressions of Maximum Value of Stress Intensity Factor of Nozzle Corner Cracks 411
CAI SHUTAO & XU YIGEN (People's Republic of China)

Analysis of Twin Saddle-Supported Vessel Subjected to Non-symmetric Loadings 423
ONG LIN SENG (Singapore)

Announcements 439